What is claimed is:

1. A method for forming titanium silicide on a supporting substrate comprising silicon, comprising the steps of:

depositing titanium on the supporting substrate; and

annealing the supporting substrate in a processing chamber at a pressure of at least approximately 1.1 atmospheres to form titanium silicide on the supporting substrate.

2. The method of claim 1, wherein the supporting substrate comprises a bottom of a contact hole.

3. The method of claim 2, wherein the contact hole has an aspect ratio of at least 2:1.

4. The method of claim 1, wherein the titanium is deposited to a thickness of approximately 500 to 2,000 angstroms.

5. The method of claim 1, wherein the processing chamber contains an inert gas ambient.

6. The method of claim 1, wherein the processing chamber contains a nitrogen-containing ambient.

7. The method of claim 1, wherein the annealing step is performed at a temperature of less than approximately 700 degrees Celsius.

8. A method for forming an interconnect in a contact hole defined by walls of an insulating material and a supporting substrate, comprising the steps of:

depositing titanium on the supporting substrate;

depositing a titanium nitride layer on the walls of the contact hole and the supporting substrate;

annealing the supporting substrate in a processing chamber at a pressure of at least approximately 1.1 atmospheres to form titanium silicide between the supporting substrate and the titanium nitride layer;

forming a tungsten plug in the contact hole on the titanium nitride layer; and

forming a metal line on the tungsten plug over the contact hole.

9. The method of claim 8, wherein the contact hole has an aspect ratio of at least 2:1.

10. The method of claim 8, wherein the titanium is deposited to a thickness of approximately 500 to 2,000 angstroms.

11. The method of claim 8, wherein the titanium nitride is deposited to a thickness of approximately 30 to 300 angstroms.

12. The method of claim 8, wherein the processing chamber contains an inert gas ambient.

13. The method of claim 8, wherein the annealing step is performed at a temperature of less than approximately 700 degrees Celsius.

14. The method of claim 8, wherein the tungsten plug is formed by depositing tungsten and force-filling the deposited tungsten into the contact hole at a pressure of at least approximately 1.1 atmospheres.

15. The method of claim 8, wherein the tungsten plug is formed by depositing tungsten using chemical vapor deposition at a pressure of at least approximately 1.1 atmospheres.

16. The method of claim 8, wherein the metal line comprises aluminum.

17. The method of claim 8, wherein the metal line has a thickness of approximately 2,000 to 5,000 angstroms.

18. A method for forming an interconnect in a contact hole defined by walls of an insulating material and a supporting substrate, comprising the steps of:

depositing titanium on the supporting substrate;

annealing the supporting substrate in a processing chamber at a pressure of at least approximately 1.1 atmospheres to form titanium silicide on the supporting substrate;

forming a tungsten plug in the contact hole, wherein the tungsten plug is supported by the titanium silicide; and

forming a metal line on the tungsten plug over the contact hole.

19. The method of claim 18, wherein the contact hole has an aspect ratio of at least 2:1.

20. The method of claim 18, wherein the titanium is deposited to a thickness of approximately 500 to 2,000 angstroms.

21. The method of claim 18, wherein the processing chamber contains an inert gas ambient.

22. The method of claim 18, wherein the processing chamber contains a nitrogen-containing ambient.

23. The method of claim 18, wherein the annealing step is performed at a temperature of less than approximately 700 degrees Celsius.

24. The method of claim 18, wherein the tungsten plug is formed by depositing tungsten and force-filling the deposited tungsten into the contact hole at a pressure of at least approximately 1.1 atmospheres.

25. The method of claim 18, wherein the tungsten plug is formed by depositing tungsten using chemical vapor deposition at a pressure of at least approximately 1.1 atmospheres.

26. The method of claim 18, wherein the metal line comprises aluminum.

27. The method of claim 18, wherein the metal line has a thickness of approximately 2,000 to 5,000 angstroms.

28. A method for forming an interconnect in a contact hole defined by walls of an insulating material and a supporting substrate, comprising the steps of:

depositing titanium on the supporting substrate;

depositing a titanium nitride layer on the walls of the contact hole and the supporting substrate;

annealing the supporting substrate at a pressure of at least approximately 1.1 atmospheres to form titanium silicide between the supporting substrate and the titanium nitride layer;

filling the contact hole with a conductive material, utilizing a pressure of at least approximately 1.1 atmospheres; and

forming a metal line on the conductive material over the contact hole.

29. The method of claim 28, wherein the contact hole has an aspect ratio of at least 2:1.

30. The method of claim 28, wherein the conductive material comprises aluminum.

31. A method for forming an interconnect in a contact hole defined by walls of an insulating material and a supporting substrate, comprising the steps of:

depositing titanium on the supporting substrate;

annealing the supporting substrate at a pressure of at least approximately 1.1 atmospheres to form titanium silicide on the supporting substrate;

filling the contact hole with a conductive material, utilizing a pressure of at least approximately 1.1 atmospheres; and

forming a metal line on the conductive material over the contact hole.

32. The method of claim 31, wherein the contact hole has an aspect ratio of at least 2:1.

33. The method of claim 31, wherein the annealing step comprises annealing in a processing chamber having an inert gas ambient.

34. The method of claim 31, wherein the annealing step comprises annealing in a processing chamber having a nitrogen-containing ambient.

35. The method of claim 31, wherein the conductive material comprises aluminum.

36. The method of claim 31, wherein the conductive material comprises tungsten.

37. A method for filling a contact hole with a conductive material, comprising the steps of:

depositing the conductive material in the contact hole; and

force-filling the conductive material into the contact hole using a pressure of at least approximately 1.1 atmospheres.

38. The method of claim 37, wherein the contact hole has an aspect ratio of at least 2:1.

39. The method of claim 37, wherein the conductive material comprises aluminum.

40. The method of claim 37, wherein the conductive material comprises tungsten.

41. The method of claim 37, wherein the depositing step and the force-filling step are performed simultaneously.

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42. An interconnect structure formed in a contact hole overlying a supporting substrate, comprising:

a titanium silicide layer on the supporting substrate in the contact hole, wherein the contact hole has an aspect ratio of at least 2:1;

an aluminum plug fill, relatively free of voids, supported by the titanium silicide layer; and

a metal line electrically coupled to and formed over the aluminum plug fill.

43. The interconnect structure of claim 42, wherein the metal line comprises aluminum.

44. A method for filling a via between two metallic conductive layers with a conductive material to contact the metal layers, comprising the steps of:

depositing the conductive material in the via; and

force-filling the conductive material into the contact hole using a pressure of at least approximately 1.1 atmospheres such that the conductive material is in electrical contact with at least two layers of metal.

45. The method of claim 44, wherein the via has an aspect ratio of at least 2:1.

46. The method of claim 44, wherein the conductive material comprises aluminum.

47. The method of claim 44, wherein the conductive material comprises tungsten.

48. The method of claim 44, wherein the depositing step and the force-filling step are performed simultaneously.

49. A method for filling a via in an insulating material with a conductive material to contact a metal layer, comprising the steps of:

depositing the conductive material in the via and onto the top surface of the insulating material; and

force-filling the conductive material into the contact hole using a pressure of at least approximately 1.1 atmospheres.

50. The method of claim 49, wherein the via has an aspect ratio of at least 2:1.

51. The method of claim 49, wherein the via has an aspect ratio of at least 5:1.

52. The method of claim 49, wherein the conductive material comprises aluminum.

53. The method of claim 49, wherein the conductive material comprises tungsten.

54. The method of claim 49, wherein the depositing step and the force-filling step are performed simultaneously.

55. The method of claim 54, wherein the conductive material on the top surface of the insulating material is patterned and etched to provide conductive paths.

56. The method of claim 55, and further comprising the steps of:

forming a layer of insulating material over the conductive paths;

forming at least one via therethrough to electrically contact the conductive material;

depositing conductive material in the via and onto the top surface of the last formed layer of insulating material;

force-filling the conductive material into the via using a pressure of at least approximately 1.1 atmospheres; and

patterning and etching the conductive material on the top surface of the last formed layer of insulating material to provide conductive paths.

57. The method of claim 56 wherein the further steps are repetitively performed a desired number of times to create multiple layers of metalization having interlayer contacts formed therebetween.

58. An integrated circuit comprising:

a substrate having circuitry formed therein;

a first insulating layer formed over the substrate;

a contact hole having an aspect ratio of at least 2:1 formed through the first insulating layer;

an aluminum plug fill in the contact hole, relatively free of voids, electrically contacting the circuitry;

a metal line electrically coupled to and formed over the aluminum plug fill;

a plurality of further insulating layers having metal lines electrically coupled to lines on other insulating layers by aluminum plugs which are relatively free of voids and formed in vias having aspect ratios of at least 2:1.

59. The integrated circuit of claim 58 wherein the aspect ratios of the contact hole and vias are at least 5:1.

60. A method for forming a dielectric layer between two conductive layers, comprising the steps of:

depositing a dielectric material onto a first conductive layer having high aspect ratio structures; and

force-filling the dielectric material into the structures using a pressure of at least approximately 1.1 atmospheres.

61. The method of claim 60 wherein the force-filling step is performed at pressures between approximate 10 to 50 atmospheres.

62. The method of claim 60 wherein the force-filling step is performed at temperatures less than approximately 600 degrees Celsius.

63. The method of claim 60 and further comprising the step of forming a second conductive layer over the dielectric material.

64. The method of claim 60 wherein the force-filling step comprises reflowing the dielectric at a temperature of less than approximately 600 degrees Celsius and at a pressure between approximately 10 to 50 atmospheres.

65. The method of claim 60 wherein the force-filling step comprises reflowing the dielectric at a temperature of less than approximately 500 degrees Celsius and at a pressure greater than 50 atmospheres.

66. The method of claim 60 wherein the force-filling step comprises a step selected from the group consisting of a rapid thermal anneal and a furnace reflow at temperatures less than approximately 600 degrees Celsius and at a pressure greater than approximately 1.1 atmospheres.

67. The method of claim 60 wherein the dielectric layer comprises a material selected from the following group consisting of: boron nitride, boron silicon nitride, polymeric oxides, and plasma oxides.

68. A method for forming interconnect structures defined by walls of an insulating material and a supporting substrate, comprising the steps of:

depositing titanium between the walls of insulating material on the supporting substrate;

annealing the supporting substrate at a pressure of at least approximately 1.1 atmospheres to form titanium silicide on the supporting substrate;

filling the contact hole with a conductive material, utilizing a pressure of at least approximately 1.1 atmospheres;

forming a metal line on the conductive material over the contact hole;

forming a layer of insulating material over the metal line;

forming at least one via through the layer of insulating material to electrically contact the metal line;

depositing conductive material in the via and onto the top surface of the last formed layer of insulating material;

force-filling the conductive material into the via using a pressure of at least approximately 1.1 atmospheres; and

patterning and etching the conductive material on the top surface of the last formed layer of insulating material to provide conductive paths.

69. The method of claim 68 wherein the vias are force-filled at pressures of greater than 10 atmospheres and at a temperature of less than approximately 500 degrees Celsius.

70. The method of claim 68 wherein the vias are force-filled at pressures of between approximately 10 to 50 atmospheres and at a temperature of less than approximately 500 degrees Celsius.

71. A method of filling structures having aspect ratios greater than 2:1 formed on a semiconductor substrate comprising the step of:

force-filling a material at a pressure greater than approximately 1.1 atmospheres and at a temperature less than approximately 700 degrees Celsius.